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*Publication date:*  
2012

*Document Version*  
Publisher's PDF, also known as Version of record

[Link back to DTU Orbit](#)

*Citation (APA):*  
Hommes, S., Pastoors, M. A., Stelzenmüller, V., Goldsborough, D., Maas, F., Sørensen, T. K., Gerits, R., Stuiver, M., & de Vos, B. (2012). *The role of knowledge and research in two case studies on crossborder marine spatial planning in the southern North Sea*. <http://ices.dk/products/CMdocs/CM-2012/I/11912.pdf>

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## **The role of knowledge and research in two case studies on cross-border Maritime Spatial Planning in the southern North Sea**

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Keywords: Marine Spatial Planning, cross-border, North Sea, Dogger Bank, Thornton Bank

### **Introduction**

Maritime Spatial Planning (MSP) is worldwide advocated as a promising tool for implementing ecosystem based maritime spatial management, which should resolve inter-sectoral and cross-border conflicts over maritime space (Ehler, 2008; Halpern et al., 2008; Douvere, 2010). Foley et al. (2010) defined ecosystem based MSP as an integrated planning framework that informs the spatial distribution of activities in and on the ocean in order to support current and future uses of ocean ecosystems and maintain the delivery of valuable ecosystem services for future generations in a way that meets ecological, economic and social objectives. In Europe, most ecosystem based sea use management and MSP initiatives are driven by international and European legislation such as the European Commissions Green Paper on Maritime Policy (Douvere and Ehler, 2008). Further, the recent EU Communication on MSP (EC, 2008) considers MSP as a key instrument for the application of the European Integrated Maritime Policy and lays out guiding principles encouraging the development of a common approach among member states. As yet, most MSP initiatives are confined within national boundaries and account only for local habitats and ecosystems while ignoring potential transboundary impacts of human uses such as shipping or fisheries (Maes, 2008; Douvere and Ehler, 2008).

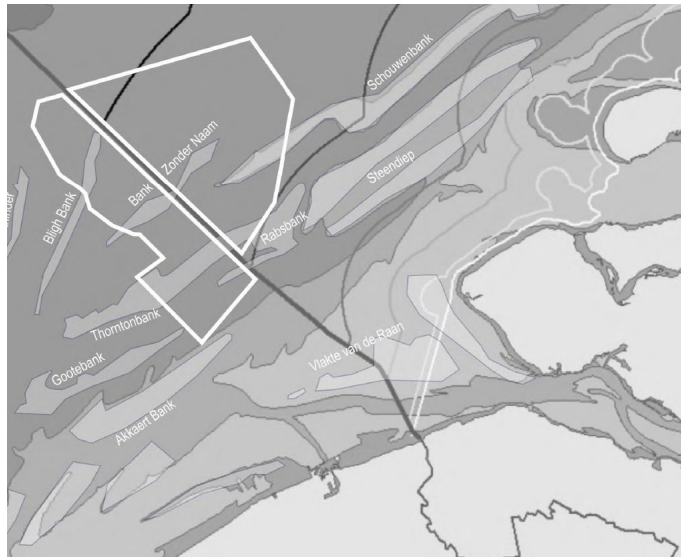
The MASPNOSE project, which forms the basis for this paper, is a Preparatory Action on Maritime Spatial Planning in the North Sea, funded by the DG MARE under tender 2009/17. The MASPNOSE project has experimented with cross-border MSP in two case studies: 1) Thornton Bank and 2) Dogger Bank. This was done through the exploration of the possibilities of cooperation among stakeholders and between countries establishing elements for a common agenda for the cross-border cooperation. In this paper, we focus on the following research question: What was the role of knowledge and research in the two planning initiatives, Thornton Bank and Dogger Bank?

### **Case studies**

#### *Case study 1: Thornton Bank*

The first case study focused on the area of the Thornton Bank, which lies approximately 40 km northwest off the Belgian coastline. It is located approximately 9 kilometres northwest of the Vlakte van de Raan, a Dutch Natura 2000 area. The Thornton Bank area mainly lies in the Belgian exclusive economic zone (EEZ) and mainly in the Dutch EEZ (Figure 1). At the start of MASPNOSE Belgium and The Netherlands were already well advanced in MSP. The case study area was designated in the Belgian MSP as a concession zone for offshore wind energy. Adjacent to the Belgian offshore wind energy concession zone, the Netherlands had indicated the zone Borssele as a suitable area for Dutch offshore wind energy, in combination with other activities. This means that both countries had a comparable renewable energy interests in the area. At the start of MASPNOSE Belgium and The Netherlands shared the same concern for safety of shipping. Furthermore, Belgian and Dutch fishermen had a long tradition of fisheries on certain species in the area, mainly by making use of beam trawling. There was no sand extraction on the Belgian side of the area in contrast to The Netherlands that made use of sand extraction. At the start of MASPNOSE, the case study area was not a

top priority biodiversity area, although biological diversity uncertainties existed on both sides. Before MASPNOSE got involved in the area, there were not many cross-border planning activities going on. There was formal communication on specific sectoral issues, such as environmental impacts of wind energy concessions in Belgium in the frame of an environmental impact assessment (EIA) procedure for wind farms and in designating safe shipping routes inbound and outbound the Western Scheldt, including decision-making on dredging activities.



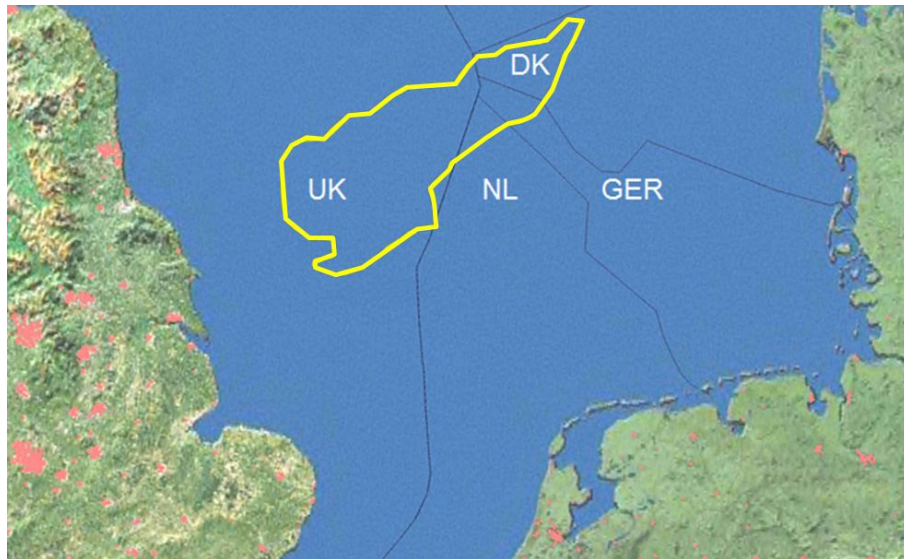
**Figure 1: Location of the Thornton Bank (Maritime Institute, Ghent University)**

The Thornton Bank case study is essentially a type of pre-planning exercise of what would be needed to develop cross-border maritime spatial planning between Belgium and The Netherlands. The participants in this process were governmental stakeholders from both countries on the domains: MSP, environment, economics and shipping. The methodology used is: 1. desktop study and exchange of relevant material between MASPNOSE partners and governmental stakeholders; 2. interviews with relevant governmental stakeholders from both countries; 3. workshops to exchange ideas and test options for a common vision and the 10 EU key principles on MSP.

The case study resulted in common understanding of priorities for the area, i.e. an economic scenario for renewable energy with environmental benefits. The MASPNOSE team acted as a facilitator and platform for parties to establish contacts for future cooperation. Some key findings were that there is a need to synchronize planning cycles in cross border consultations and to invest in the development of a common language.

### Case study 2: Dogger Bank

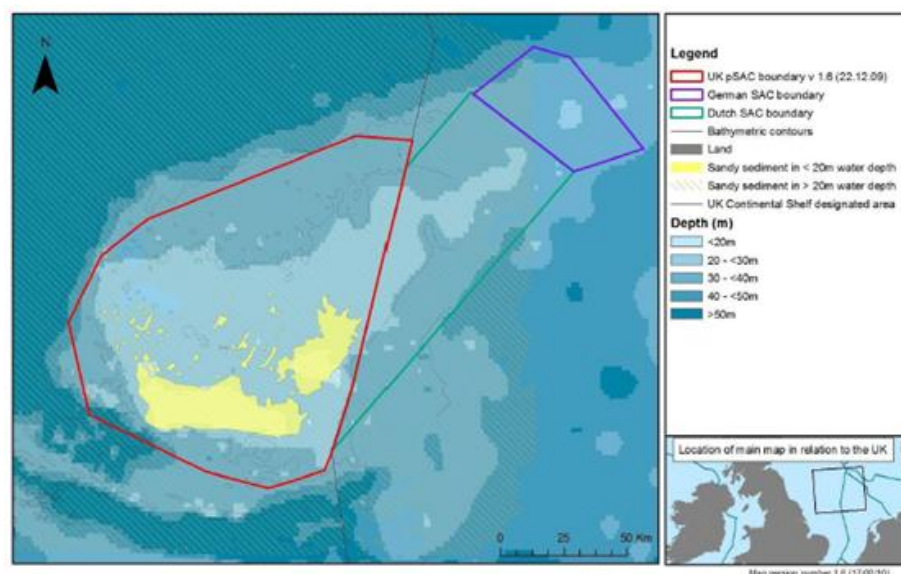
The Dogger Bank is the largest sandbank in the North Sea (Figure 2) and it is divided among the Exclusive Economic Zones (EEZs) of the United Kingdom (UK), The Netherlands (NL), Germany (GER), and Denmark (DK).



**Figure 2: Dogger Bank and the EEZ of UK, Netherlands, Germany and Denmark**

The shallow flat top is considered to be relatively dynamic in comparison to the surrounding slopes that are more stable. The length of the sandbank feature is 300km in an east-northeast orientation, with a maximum width of a 120 km in a west-southwest orientation, and the nearest land is the UK at a distance of a 100 km.

The focus of this case study is on the whole feature of the Dogger Bank that has been designated or proposed as Special Areas of Conservation (SAC) under the Habitats Directive (EC Directive 92/43/EEC) by the UK, GER and NL. Within the case study three specific sub-areas of the Dogger Bank are identified (Figure 3): the German SAC, the Dutch SAC and the United Kingdom considered SAC (cSAC).



**Figure 3: Site boundaries of UK cSAC, Dutch SAC and German SAC. (source: JNCC/CEFAS 2010)**

The Dogger Bank case study is mostly about stakeholder involvement in cross-border maritime spatial planning. The main focus was on fisheries management in relation to nature conservation (Natura2000) and wind farm development. MASPNOSE facilitated the North

Sea Regional Advisory Council (NSRAC) input in the international decision-making process led by the Dogger Bank Steering Group (DBSG), which consists of representatives of the different Member States. The stakeholder input can be split up into five different phases that took place between March 2011 and April 2012 (and is still ongoing). The relation between the international decision-making process (by the DBSG) and the stakeholder involvement has changed over the course of these phases. There has been a tendency by the DBSG to request from the stakeholder process solutions for issues where an agreement within the DBSG could not be reached. For example, the NSRAC was requested to make a zoning plan with a protected area between 25 and 55%. The role of the stakeholder process has not been clearly described by the DBSG. Clear roles, responsibilities, timelines, and rules of the game are essential for MSP.

Both case studies created an enabling platform for discussing transboundary MSPs. While the Dogger Bank case study was important to facilitate the process and assess it, the Thornton Bank case study brought governmental stakeholder together that would not have been the case without MASPNOSE. In the Dogger Bank case study private stakeholders (e.g. fisheries) were involved, while this was an already initiated and on-going process. In the Thornton Bank case study, on the other hand, governmental stakeholders came together for the first time and preferred not to involve private stakeholders.

### **Conclusions on the role of knowledge and research in the case studies**

In the Thornton Bank case study the knowledge requirements focussed on the institutional and administrative settings and the identification of policy priorities. It became clear that a strong data and knowledge base is important, however more important is who is going to make the trade-off that needs to take place based on the data. It is also important to agree on which knowledge is going to be used. Not just making long wish lists for new data and knowledge but also agree on what can be done with the current knowledge.

In the Dogger Bank case study, stakeholder knowledge was combined with research knowledge to assess zoning options for the Dogger Bank area. The stakeholders involved preferred to have clear scientific data regarding the percentage of the Dogger Bank area that needed to be protected. However, one may wonder if scientific data is sufficient to give a clear answer to this question and whether scientists could provide that type of data.

We conclude that in both case studies the role of knowledge and research is of crucial importance. MSP has to be based on sound information and scientific knowledge. Planning processes need to evolve with knowledge and learning of the stakeholders involved (adaptive management). According to adaptive management, collective learning is a process, not a collection of facts and data gathered. Therefore, in MSP processes it is important to make a distinction between: facts, opinions and interpretations. Furthermore, there is always a risk that there is never enough information. However, under adaptive management you can still take decisions. Two aspects are important in this respect: to agree what knowledge base to use and how to provide the necessary quality assurance on data and knowledge.

## **Acknowledgements**

We would like to acknowledge the MASPNOSE advisory board, which consisted of Roland Cormier (DFO, Canada), Charles Ehler (Ocean Visions Consulting, France) and Eugene Nixon (Marine Institute, Ireland). We have had two inspiring sessions with the advisory board and they have made an important impact in steering the project towards the final results on the two case studies. A special thanks to Lodewijk Abspoel (Ministry of Infrastructure & Environment, The Netherlands), Steven Vandenborre (Federal Public Service Health, Food chain safety and Environment, Belgium) and Euan Dunn (NSRAC) for their very active and engaged participation throughout the MASPNOSE project. We want to thank all contributors to the workshops and reports that constitute the basis for the results described in this paper.

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